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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,451	05/08/2001	Jong-Kwang Kim	678-657 (P9453)	4167

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EXAMINER	
FLANDERS, ANDREW C	
ART UNIT	PAPER NUMBER
2615	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/851,451	KIM, JONG-KWANG	
	Examiner	Art Unit	
	Andrew C. Flanders	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 22 January 2007 have been fully considered but they are not persuasive.

Applicant alleges:

> In Tran et al., a multimedia speaker detector determines whether a connected speaker is an actively driven speaker or a passively driven speaker by detecting an impedance level of the speaker connected to the system. Accordingly, the system of Tran et al. would previously store the impedance value in order to distinguish a type of the speaker in comparison with the impedance level detected from the connected speaker.
>
> In contrast, in the present invention, it is unnecessary to detect the impedance level and previously store the impedance value in order to distinguish the type of the speaker.
>
> In the present invention, a sense signal is generated according to the connection of nodes P1 and P3 from among the nodes (P1-P3) of an ear jack. Further, the present invention discloses a structure for distinguishing whether an earphone is connected or an external speaker is connected according to whether the generated sense signal is high or low. Tan et al. fails to cure the above defect of Tran et al. Accordingly, it is believed that the combination of Tran et al. and Tan et al. fails render the present invention unpatentable.

Examiner respectfully disagrees. Applicant argues that a storing step is necessary for the combination to operate properly. Assuming, for the sake of argument, that Applicant is correct, this interpretation does not preclude Tran and Tan from reading on the claimed invention. Even though Tran measures the voltage as a relation to impedance, the claim only requires the voltage to be measure and does not preclude

the measuring of impedance. As such, the claimed limitations are made obvious by the combination.

Further, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., whether the generated sense signal is high or low) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 – 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tran (U.S. Patent 6,359,987) in view of Tan (U.S. Patent 6,449,371).

Regarding **Claims 1 and 5**, Tran discloses:

An audio output control apparatus in a mobile terminal having a player for reproducing audio data into an audio signal (Fig. 1, computers can be moved from location to location and thus are mobile), comprising:

an ear jack (Fig. 2 element 66).

Tran does not explicitly disclose that the ear jack is for transferring the audio signal output from the player to one of an earphone and an external speaker.

Tran does disclose impedance detection circuitry coupled to detect whether the attached speakers are passively driven or actively driven. If they are passively driven, the amplification is increased and if they are powered, they amplification is decreased (see Fig. 4 and its description). Tran further discloses non-amplified speakers and amplified speakers (col. 7). Tran does not disclose earphones, however, Examiner takes official notice that passively driven earphones are notoriously well known in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to attach passively driven earphones to the computer system to enjoy sound without disturbing others.

The attachment of the actively driven speakers and passive earphones to the system of Tran further discloses:

an ear jack (fig. 2 element 66) for transferring the audio signal output from the player to one of an earphone (the passively driven earphones) and an external speaker (the actively driven speakers; col. 7), connected thereto, and generating one of a first and second voltage indicating whether a connected audio output device is the earphone or the external speaker, respectively (Fig. 4 element 156, speakers being amplified,

headphones being non amplified; the amplified speakers generating one voltage, the non amplified headphones generating another); and

a controller (i.e. the impedance detection circuitry; Fig. 4) for determining the audio output device connected to the ear jack depending on the first and second voltage (the impedance is determined based upon the measured voltage; Fig. 4) and controlling an audio gain of the player according to the determined result (i.e. the gain is lowered for the amplified speakers and increased for the passively driven headphones; Fig. 4).

Furthermore, Tran does not explicitly disclose that the computer player is an MP3 player.

Tan discloses a computer that is configured to reproduce an MP3 audio signal.

It would have been obvious to one of ordinary skill in the art to modify Tran's computer to playback MP3 audio files as taught by Tan. One would have been motivated to do so to enable Tran's computer to pay commonly available music files. The MP3 format is greatly compressed and thereby results in smaller files allowing music to be stored on the Tran system in much less space.

Regarding **Claim 2**, in addition to the elements stated above regarding claim 1, the combination further discloses:

wherein the ear jack has at least two nodes for sensing connection to either the earphone or the external speaker (col. 8 lines 7 – 9).

Regarding **Claims 3 and 6**, in addition to the elements stated above regarding claims 2 and 5, the combination further discloses:

wherein the controller increases the audio gain when the external speaker is connected to the ear jack, and the controller decreases the audio gain when the earphone is connected to the ear jack (i.e. the gain is lowered for the amplified speakers and increased for the passively driven headphones; Fig. 4 and col. 7).

Regarding **Claim 4**, in addition to the elements stated above regarding claim 2, the combination further discloses:

wherein the earphone includes a first ear jack connector connected to the ear jack for generating the first voltage, and the external speaker includes a second ear jack connector connected to the ear jack for generating the second voltage (the earphone and amplified speakers must have connectors to connect to the Tran system, the amplified speakers generating one voltage, the non amplified headphones generating another).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Flanders whose telephone number is (571) 272-7516. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7546. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

acf

SINH TRAN
SUPERVISORY PATENT EXAMINER